

In the claims:

1. A watercraft lift assembly for selectively lifting a water craft into and out of a waterway, said assembly comprising:
  - a. a support structure installed within said water way, said support structure comprising at least two vertical pilings, said at least two vertical pilings having outer sides and a proximal end;
  - b. at least one transverse beam mounted between said vertical pilings, said beams configured for carrying said watercraft;
  - c. a pulley assembly secured to said support structure and transverse beams, said pulley assembly including a set of lifting cables mounted thereon for selectively lifting said water craft into and out of said waterway, each of said set of cables having a free cable end for mounting to one of said pilings;
  - d. a motor/winch assembly secured to said assembly for activating said pulley assembly; and
  - e. a cable tie-off device for securing said free cable end to one of said vertical pilings, said cable tie-off device comprising (i) a jacket secured about the outer sides of the vertical piling, said jacket comprising first and second opposing brackets configured to engage the sides of the piling, each of said brackets having fastening portions extending from each end of the brackets, such that when said brackets are mounted onto the piling, the fastening portions of said first bracket are aligned with, and secured to, adjacent fastening portions of said second bracket by a fastener engaging each of said adjacent portions; (ii) said jacket further having at least one platform extending from the outer surface of one of said brackets, said

platform having a slot communicating therethrough; and (iii) a wedge configured to fit within said slot of said platform, said wedge further having a grooved periphery for maintaining a portion of said free cable end, such that when said wedge in combination with said portion of said free cable end are inserted within said slot, any force pulling said wedge further within said slot locks said wedge therein, thereby preventing slippage of said free cable end therein.

2. A watercraft lift assembly for selectively lifting a water craft into and out of a waterway, said assembly comprising:

- a. a support structure installed within said water way, said support structure comprising at least two vertical pilings, said at least two vertical pilings having outer sides and a proximal end;
- b. at least one transverse beam mounted between said vertical pilings, said beams configured for carrying said watercraft;
- c. a pulley assembly secured to said support structure and transverse beams, said pulley assembly including a set of lifting cables mounted thereon for selectively lifting said water craft into and out of said waterway, each of said set of cables having a free cable end for mounting to one of said pilings;
- d. a motor/winch assembly secured to said assembly for activating said pulley assembly; and
- e. a cable tie-off device for securing said free cable end to one of said vertical pilings, said cable tie-off device comprising (i) a jacket secured about the outer sides of the vertical piling, said jacket comprising first and second opposing brackets configured to engage the sides of the piling, each of said brackets having fastening portions extending from each end of the brackets, such that when said brackets are mounted onto the piling, the fastening

portions of said first bracket are aligned with, and secured to, adjacent fastening portions of said second bracket by a fastener engaging each of said adjacent portions; (ii) said jacket further having at least one platform extending from the outer surface of one of said brackets, said platform having a slot communicating therethrough and a housing disposed above, and in communication with, said slot; and (iii) a wedge configured to fit within said housing of said platform, said wedge further having a grooved periphery for maintaining a portion of said free cable end, such that when said wedge in combination with said portion of said free cable end, are inserted within said housing, any force pulling said wedge further within said housing locks said wedge therein, thereby preventing slippage of said free cable end therein.

3. A watercraft lift assembly for selectively lifting a watercraft into and out of a waterway, said assembly comprising:

a. a support structure installed within said water way, said support structure comprising at least two vertical pilings, said at least two vertical pilings each having outer sides and a proximal end;

b. at least one transverse beam mounted between said vertical pilings, said beams configured for carrying said watercraft;

c. a pulley assembly secured to said support structure and transverse beams, said pulley assembly including a set of lifting cables mounted thereon for selectively lifting said water craft into and out of said waterway, each of said set of cables having a free cable end for mounting to one of said pilings;

d. a motor/winch assembly secured to said assembly for activating said pulley assembly; and

e. a cable tie-off device for securing said free cable end to near the proximal end of said vertical piling, above said transverse beams, said cable

tie-off device comprising (i) a cap secured to said proximal end of said vertical piling, said cap having a top portion and side walls integral with said top portion and extending downward entirely around said vertical piling sides; (ii) at least one platform extending from one of said side walls of said cap, said platform having a slot communicating therethrough; and (iii) a wedge configured to fit within said slot of said platform, said wedge further having a grooved periphery for maintaining a portion of said free cable end, such that when said wedge in combination with said portion of said free cable end are inserted within said slot, a force pulling said wedge further within said slot locks said wedge therein, thereby preventing slippage of said free cable end therein.

4. The watercraft lift assembly of claim 3, wherein said cap is securely maintained upon proximal end of said vertical piling in part by said force without use of mechanical fasteners penetrating said cap and said vertical piling.

5. A watercraft lift assembly for selectively lifting a water craft into and out of a waterway, said assembly comprising:

- a. a support structure installed within said water way, said support structure comprising at least two vertical pilings, said at least two vertical pilings each having outer sides and a proximal end;
- b. at least one transverse beam mounted between said vertical pilings, said beams configured for carrying said watercraft;
- c. a pulley assembly secured to said support structure and transverse beams, said pulley assembly including a set of lifting cables mounted thereon for selectively lifting said water craft into and out of said waterway, each of said set of cables having a free cable end for mounting to one of said pilings;

- d. a motor/winch assembly secured to said assembly for activating said pulley assembly; and
- e. a cable tie-off device for securing said free cable end to near the proximal end of said vertical piling, above said transverse beams, said cable tie-off device comprising (i) a cap secured to said proximal end of said vertical piling, said cap having a top portion and side walls integral with said top portion and extending downward entirely around said vertical piling sides; (ii) at least one platform extending from one of said side walls of said cap, said platform having a slot communicating therethrough and a housing disposed above, and in communication with, said slot ; and (iii) a wedge configured to fit within said housing of said platform, said wedge further having a grooved periphery for maintaining a portion of said free cable end, such that when said wedge in combination with said portion of said free cable end are inserted within said housing, any force pulling said wedge further within said housing locks said wedge therein, thereby preventing slippage of said free cable end therein.

6. The watercraft lift assembly of claim 5, wherein said cap is securely maintained upon proximal end of said vertical piling in part by said force without use of mechanical fasteners penetrating said cap and said vertical piling.

7. A watercraft lift assembly for selectively lifting a water craft into and out of a waterway, said assembly comprising:

- a. a support structure installed within said water way, said support structure comprising at least two vertical pilings, said at least two vertical pilings each having outer sides and a proximal end;
- b. at least one transverse beam mounted between said vertical pilings, said beams configured for carrying said watercraft;

- c. a pulley assembly secured to said support structure and transverse beams, said pulley assembly including a set of lifting cables mounted thereon for selectively lifting said water craft into and out of said waterway, each of said set of cables having a free cable end for mounting to one of said pilings;
  - d. a cap secured to the proximal end of said vertical piling, said cap having a top portion and side walls integral with said top portion and extending downward entirely around said vertical piling sides;
  - e. a motor/winch assembly secured to one of said side walls of said cap for activating said pulley assembly; and
8. The watercraft lift assembly of claim 7, wherein said cap is securely maintained upon proximal end of said vertical piling in part by said force without use of mechanical fasteners penetrating said cap and said vertical piling.

9. A watercraft lift assembly for selectively lifting a water craft into and out of a waterway, said assembly comprising:
- a a support structure installed within said water way, said support structure comprising first and second vertical pilings positioned on a proximal side of said watercraft and a third vertical piling positioned on a distal side of said watercraft;
  - b. a first transverse beam mounted between said first and third pilings and a second transverse beam mounted between said second and third pilings, said beams configured for carrying said watercraft;
  - c. two winch assemblies, wherein each of said winch assemblies is attached to one of said first and second pilings, each of said winch assemblies further including a rotatable spool and a motor for turning said spool;

- d. a first cable wound about said spool, said cable having one end fixedly secured to said spool and a second end fixedly secured to either said piling or a portion of said winch assembly;
- e. a pulley assembly secured to said support structure and one of said beams, said pulley assembly including a first pulley wheel housed between two parallel plates and rotatably mounted onto a first bolt connecting said parallel plates, and wherein said first cable is movably mounted on said first pulley wheel for longitudinal movement upon activation of said motor;
- f. said pulley assembly further including a second pulley wheel housed between said two parallel plates and rotatably mounted onto a second bolt connecting said parallel plates, said second pulley wheel positioned subjacent to said first pulley wheel;
- g. said pulley assembly further including a third pulley wheel positioned subjacent to said second pulley wheel and mounted within a bracket by a third bolt, wherein said bracket is further secured to a first end of said beam;
- h. a second cable having a first end fixedly secured to one of said first and second pilings below said first end of said beam, and a second end fixedly secured onto and near a top end of said third piling, and wherein said second cable is further aligned, in succession, over said second pulley wheel, beneath said third pulley wheel, along a top surface of said beam, and beneath a fourth pulley wheel, said fourth pulley wheel mounted within a bracket by a bolt, wherein said bracket is further secured to a second end of one of said elongated beams; and

i. a cable tie-off device for securing said free cable end to one of said vertical pilings, said cable tie-off device comprising (i) a jacket secured about the outer sides of the vertical piling, said jacket comprising first and second opposing brackets configured to engage the sides of the piling, each of said brackets having fastening portions extending from each end of the brackets, such that when said brackets are mounted onto the piling, the fastening portions of said first bracket are aligned with, and secured to, adjacent fastening portions of said second bracket by a fastener engaging each of said adjacent portions; (ii) said jacket further having at least one platform extending from the outer surface of one of said brackets, said platform having a slot communicating therethrough and a housing disposed above, and in communication with, said slot; and (iii) a wedge configured to fit within said housing of said platform, said wedge further having a grooved periphery for maintaining a portion of said free cable end, such that when said wedge in combination with said portion of said free cable end, are inserted within said housing, any force pulling said wedge further within said housing locks said wedge therein, thereby preventing slippage of said free cable end therein; whereby when said motor is selectively actuated to raise or lower a water craft carried on said elongated beams, said winches on each of said first and second pilings are activated to synchronistically wind said first cable about said spool, thereby moving said first and second pulleys longitudinally along said second cable.

10. A watercraft lift assembly for selectively lifting a water craft into and out of a waterway, said assembly comprising:

- a. a support structure installed within said water way, said support structure comprising a first vertical piling positioned on a proximal side of said watercraft and second and third vertical pilings positioned on a distal side of said watercraft;

- b. a first transverse beam mounted between said first and second pilings and a second transverse beam mounted between said first and third pilings, said beams configured for carrying said watercraft;
- c. a winch assembly mounted onto a top end of said first piling, said winch assembly further including a pair of rotatable spools and a motor for turning said spools;
- d. a pair of first cables, wherein each of said first cables is wound about one of said spools and has one end fixedly secured to said spool and a second end fixedly secured to a first bolt connecting a pair of parallel plates;
- e. a pair of pulley assemblies secured to said first piling and said transverse beams, wherein said pulley assemblies further includes a first pulley wheel housed between said two parallel plates, said first pulley wheel subjacent to said first bolt and rotatably mounted onto a second bolt, said second bolt further secured to a lower end of said parallel plates;
- f. said pulley assembly further including a second pulley wheel positioned subjacent to said first pulley wheel and mounted within a bracket by a third bolt, wherein said bracket is further secured to a first end of said beam; and
- g. a set of second cables, each having a first end fixedly secured to one side of said first piling below said first end of said beam, and a second end fixedly secured onto and near a top end of one of said second or third piling, and wherein said second cable is further aligned, in succession, over said first pulley wheel, beneath said second pulley wheel, along a top surface of said beam, and beneath a third pulley wheel, wherein said third pulley wheel is mounted within a bracket by a bolt, said bracket further secured to a second end of one of said elongated beams; and

h. a cable tie-off device for securing said free cable end to one of said vertical pilings, said cable tie-off device comprising (i) a jacket secured about the outer sides of the vertical piling, said jacket comprising first and second opposing brackets configured to engage the sides of the piling, each of said brackets having fastening portions extending from each end of the brackets, such that when said brackets are mounted onto the piling, the fastening portions of said first bracket are aligned with, and secured to, adjacent fastening portions of said second bracket by a fastener engaging each of said adjacent portions; (ii) said jacket further having at least one platform extending from the outer surface of one of said brackets, said platform having a slot communicating therethrough and a housing disposed above, and in communication with, said slot; and (iii) a wedge configured to fit within said housing of said platform, said wedge further having a grooved periphery for maintaining a portion of said free cable end, such that when said wedge in combination with said portion of said free cable end, are inserted within said housing, any force pulling said wedge further within said housing locks said wedge therein, thereby preventing slippage of said free cable end therein; whereby when said motor is selectively actuated to raise or lower a water craft carried on said elongated beams, said pair of spools on each side of said first piling are activated to synchronistically wind said first cable about said spool, thereby moving said first bolt and second pulley longitudinally along said second cable to move said beam.

11. A watercraft lift assembly for selectively lifting a water craft into and out of a waterway, said assembly comprising:

a. a support structure installed within said water way, said support structure comprising a first pair of vertical pilings positioned on a proximal side of said watercraft and a second pair vertical pilings positioned on a distal side of said watercraft;

- b. a pair of transverse beams, one of said pair of beams mounted between adjacent proximal and distal pilings; said beams configured for carrying said watercraft as said watercraft is selectively lifted into and out of said waterway by said watercraft lift assembly;
- c. a pair of winch assemblies, each of said winch assemblies mounted onto a top end of one of said pair of first pilings, each of said winch assemblies further including a rotatable spool and a motor for turning said spool;
- d. a first cable wound about each of said spools, said first cable having one end fixedly secured to said spool and a second end fixedly secured to a portion of said winch assembly on each of said first pair of pilings;
- e. a pulley assembly secured to said support structure and each of said beams, said pulley assembly including a first pulley wheel housed between two parallel plates and rotatably mounted onto a first bolt connecting said parallel plates, and wherein said first cable is movably mounted on said first pulley wheel for longitudinal movement upon activation of said motor;
- f. said pulley assembly further including a second pulley wheel housed between said two parallel plates and rotatably mounted onto a second bolt connecting said parallel plates, said second pulley wheel positioned subjacent to said first pulley wheel;
- g. said pulley assembly further including a third pulley wheel positioned subjacent to said second pulley wheel and mounted onto a third bolt, said third pulley wheel and third bolt, in combination, further mounted to a first end of said beam;
- h. a second cable having a first end fixedly secured to one of said first pair of pilings below said first end of said beam, and a second end fixedly secured onto and near a top end of one of said second pair of pilings, and wherein

said second cable is further aligned over said second pulley wheel, beneath said third pulley wheel, along a top surface of said beam, and beneath a fourth pulley wheel, said fourth pulley wheel mounted to a second end of one of said elongated beams;

- i. a cable tie-off device for securing said free cable end to one of said vertical pilings, said cable tie-off device comprising (i) a jacket secured about the outer sides of the vertical piling, said jacket comprising first and second opposing brackets configured to engage the sides of the piling, each of said brackets having fastening portions extending from each end of the brackets, such that when said brackets are mounted onto the piling, the fastening portions of said first bracket are aligned with, and secured to, adjacent fastening portions of said second bracket by a fastener engaging each of said adjacent portions; (ii) said jacket further having at least one platform extending from the outer surface of one of said brackets, said platform having a slot communicating therethrough and a housing disposed above, and in communication with, said slot; and (iii) a wedge configured to fit within said housing of said platform, said wedge further having a grooved periphery for maintaining a portion of said free cable end, such that when said wedge in combination with said portion of said free cable end, are inserted within said housing, any force pulling said wedge further within said housing locks said wedge therein, thereby preventing slippage of said free cable end therein; and

whereby when said motors are selectively actuated to raise or lower a water craft carried on said elongated beams, said winches on said first pair of pilings are activated to synchronistically wind said first cable about said spool, thereby moving said second and third pulleys longitudinally along said second cables.